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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,849	08/09/2006	Hiroshi Yasuda	043888-0503	1154

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EXAMINER	
MAPLES, JOHN S	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
07/30/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/588,849	YASUDA ET AL.	
	Examiner	Art Unit	
	John S. Maples	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-11* is/are pending in the application.

4a) Of the above claim(s) *11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Newly amended claim 11 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the battery of Group I (claims 1, 2, 4-10) could be made by another and materially different method than that set forth in claim 11 such as by using formed electrode plates.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 11 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. (New Rejection)

The language in line 2 of claim 10 "an inert gas is charged inside said battery container" does not find support in the originally filed specification.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 2, 3-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-8-321328 ('328) taken in view of CN 2069172 ('172), Clough-US 6,506,522 ('522), Bunsch et al.-US 6,403,264 ('264) and Ruiz Rodriguez et al.-US 6,528,206. ('206) (New Rejection)

The '328 document discloses in the English language abstract and in the machine translation a sealed automobile lead acid battery (para. 1) that inherently comprises a sulfuric acid electrolyte and a plurality of positive and negative electrode plates 11 wherein the electrolyte level approaches and eventually resides within the

relation as claimed in both claims 1 and 11-see the English language abstract of '328 along with Figure 2 therein. The claimed relation is met by the electrolyte level being between 30 and 60 percent of the height of the electrode plates, which value is met by the teachings in '328. It is noted that the inside of the battery in '328 would inherently comprise an inert gas such as helium which is found in atmospheric air and thus meet the claimed recitations of claim 10. The only claimed features not shown by '328 are the specific grid, electrolyte and separator makeup amount of sulfuric acid in the electrolyte, the oil in the separators and for the separators between the electrode plates accommodating the negative plates. The '172 reference sets forth the lead-cadmium alloy battery grids and to utilize the same in '328 would have been obvious to one of ordinary skill in this art at the time the invention was made because the same would provide a very strong grid material. Column 4, lines 32-79 in '522 recite an amount of sulfuric acid in a lead acid battery electrolyte being from 10-14%, which amount is within applicant's claimed range. To have thus included this amount of sulfuric acid of '522 in the battery of '328 would have been obvious for the known high output of such amount of acid in a lead acid battery. The '264 patent discloses a lead acid battery wherein the separators are made of polyethylene and the separators include oil therein in the amount claimed by applicant and the separators include sulfur-see the Abstract and column 3, lines 1-47 in '264 along with claim 8. To have incorporated the above elements of '264 in the battery of '328 would have been obvious because the same would improve the output characteristics of the battery. The '206 patent teaches in column 3, lines 16-21 a lead acid battery wherein the negative plates can be placed in

separator bags to separate the same from the positive plates. To have utilized the bags of '206 in the battery of '328 would have been obvious so that the battery could be made smaller due to the less space required by the separator bags.

Applicant's arguments have all been considered but are not deemed persuasive in view of the above new grounds of rejection.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over '328 taken in view of JP-63-244568. ('568)

The only claimed feature not taught by '328 is the lead alloy layer with Sn. The '568 reference teaches in the English language abstract a lead acid battery including a lead alloy layer with Sn. To have included in the battery in '328 the alloy layer of '568 would have been obvious to one of ordinary skill in this art because of the high electrochemical properties of the said alloy.

7. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 571-272-1287. The examiner can normally be reached on Monday-Friday, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Michener can be reached on 571-272-1424. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John S. Maples/

John S. Maples
Primary Examiner
Art Unit 1795

JSM/7-23-2010